

Pliny discovers America!

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Everyone knows the story of Christopher Columbus sitting on the beach and noticing how ships appeared to sink out of sight:

If something bright and shiny were attached to the top of the mast, it would seem to descend slowly and be the last thing to disappear.

The logical corollary to this is that the world must be round, not flat: but if so then waters on the opposite side of the world must fall off, surely?

Waters always find their way from higher to lower ground, and since it is obvious that the lower an object is, the closer it is to the centre of the earth, it follows that all waters in all parts of the earth converge towards the centre, and it is this inward pressure that prevents them from falling off.

The same argument would equally well answer the age-old question 'Why do the people living on the opposite side of the earth not fall off?'

It may come as a surprise to readers that the two quotations given above come not from a 16th century source but from Pliny the Elder. Pliny is full of surprises – and a reasoned approach, seeking natural explanations for various phenomena, is a keynote in his work.

Natural explanations

Pliny's approach is evident in his discussion of fish and whether they breathe, even if they have no lungs as such. His arguments include: even those without lungs may be endowed by Nature with others means of extracting air from water; some fish apparently pant during the heat of summer; and fish have a sense of smell (the argument here being that any smell is imperfect air, therefore to have a sense of smell means that fish somehow can assimilate air). Not all is necessarily 'right' – but it is a reasonable attempt at rational explanation.

Even when blatantly wrong, we can often see his ideas verging towards natural explanations: thunderbolts, for example, he explains as fire flung out from planets, just as a burning log often spits out slivers of burning wood. The planets most often emitting such burning fragments are Mars, Saturn, and especially Jupiter – *'and that is the origin of the myth that thunderbolts are javelins hurled by Jupiter.'*

If we compare this

When a certain wealthy but deformed man wished to sire a handsome son, he had a good-looking child depicted on a broad tablet and told his wife to look at it during intercourse. She looked attentively at it throughout, so to speak concentrating her whole mind upon it, and gave birth to a baby resembling not the father but the child in the painting,

which is taken from a later writer, Galen of Pergamum, with Pliny on the same topic,

It is a well-known fact that deformed children may be born to sound parents and to deformed parents either sound children or children with the same deformity ... Very many incidental factors influence this: sights, sounds, memories or images at the moment of conception. A sudden thought flitting across the mind of either parent when conception occurs is believed to cause or contribute to a likeness in the offspring. For this reason there are more differences in human beings than in all other animals: their swiftness of thought and rapidity of mind produce multifarious patterns. In other animals, the mind is slow and sluggish, producing similar offspring to the parents in each species,

we see how Pliny goes beyond the theory and seeks to draw rational conclusions from it – the sort of ultimate 'mind over matter' conclusion!

Pliny's influence

Pliny was, throughout the middle ages (and well beyond), regarded as one of the outstanding scientists of the ancient world. Chaucer and Dante number him amongst the greatest medical authorities (medicine alone of the sciences had a separate existence before the 18th century); his work was also one of the medical set texts for Oxford medical degrees until 1833! Much erroneous information was thereby perpetuated: for example, Pliny describes the beaver as having a tail like a fish.

Perhaps even more surprising is the suggestion that there might be land and people on the opposite side of the world:

So seas surround the world on all sides; by separating the globe into two, they deprive us of half the world, since there is no means of crossing from here to there or back again.

If Democritus can be claimed as the discoverer of the atom, by postulating its existence without proving it physically, then Pliny could equally be hailed as the one who first 'discovered' America or even Australia!

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